SLEEP AND WAKEFULNESS—Revised and Enlarged Edition—Nathaniel Kleitman. The University of Chicago Press, 5750 Ellis Avenue, Chicago, Ill., 1963. 552 pages, $12.50.

In the original (1939) edition of this book the author provided an impressive accumulation and review of scientific data which helped to dispel much of the folklore surrounding the subject of sleep. In the present revised edition, the author in an imaginative yet comprehensive manner, combines the recent findings of workers in the field with past work to modify his views regarding a basic rest-activity cycle, separation of the concept of consciousness from that of wakefulness and evolutionary changes in sleep and wakefulness.

The first section is concerned with the differences between sleep and wakefulness. In the chapter on brain potentials, the establishment of a short-term basic rest-activity periodicity in animals and man is discussed as are other advances made by recording spontaneous and evoked electrical changes in the CNS. This provides a lucid background for the next part of the book which deals with the course of events during sleep. Of particular interest here is the chapter on dreaming which deals with the recent wealth of knowledge obtained after the author's discovery of the relationship between rapid eye movements and dreaming.

Other parts of the book discuss states resembling sleep such as hypnosis and hibernation; and influencing sleep through pharmacological and hygienic measures. The sections on the development and maintenance of a 24 hour sleep-wakefulness rhythm and experimental interference with this rhythm lead up to the author's modification of his evolutionary theory of sleep and wakefulness. In discussing the necessity for a maturing and functioning cortex, he incorporates knowledge regarding the ascending reticular activating system and diffuse thalamic projection system and the short-term rest-activity cycle.

The book is complete and concise and is welcome in an area of study which has mushroomed in the last decade. The bibliography contains over 4300 references pertaining to all the significant work in the field and is invaluable to future researchers. While it is of greatest help to those engaged in research in this area, it also provides an excellent framework for anyone generally interested in the topic.

ANTHONY KALES, M.D.

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GENERAL PRINCIPLES OF BLOOD TRANSFUSION—Prepared by the Subcommittee on Transfusion Problems, Division of Medical Sciences, National Academy of Sciences—National Research Council. J. B. Lippincott Company, East Washington Square, Philadelphia 5, Pa., 1963. 40 pages, $2.00.

This short monograph by acknowledged leaders in the field should be required reading for every medical student, house officer and practicing physician. It properly points out the dangers of blood transfusion and the limited availability of blood, making clear the indications for transfusions and the appropriate blood fractions to be used in various situations. Minimal serologic standards are outlined, and legal implications of transfusion therapy are considered.

As one would anticipate, an attempt to provide guidance by simplified and dogmatic statements in a field where knowledge is rapidly advancing leads to statements which other workers in the field may have trouble accepting. Such statements are remarkably few, but the implication that fibrinogen is unstable in routine bank blood is hardly true; and the data given on the duration of effectiveness of transfused clotting factors is excessively vague, occasionally erroneous, and not completely up-to-date.

This booklet appeared originally as part of an issue of *Transfusion*, the official journal of the American Association of Blood Banks. The separated bound monograph has newly numbered pages, but regrettably all references within the text to other sections still carry the page numbers of the original journal printing.

Despite these objections, this booklet belongs in the library of every medical school and hospital, no matter how small.

HERBERT A. PERKINS, M.D.

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CURRENT PEDIATRIC THERAPY—Sydney S. Gellis, M.D., Professor of Pediatrics and Chairman of the Department of Pediatrics, Boston University School of Medicine; Director of Pediatrics, Boston City Hospital; and Benjamin M. Kagan, M.D., Director, Department of Pediatrics, Cedars of Lebanon Hospital, Los Angeles; Clinical Professor of Pediatrics, University of California, Los Angeles. W. B. Saunders Company, Philadelphia & London, 1964. 747 pages, $16.00.

This book is one in which each of 240 contributors, all authorities in some special phase of pediatric care, details his personal ideas concerning the treatment of sick infants and children.

Diagnosis and etiology are assumed to be already known, the questions addressed to each of the contributors is how best to plan treatment in detail.

This purpose is admirably accomplished. Almost all disorders a physician will be called upon to care for are discussed. Any physician who encounters a broad variety of childhood illness will find this a practical, useful and reliable therapeutic guide.

WILLIAM C. DEAMER, M.D.

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ADVANCES IN BIOLOGY OF SKIN: Vol. IV, The Sebaceous Glands. Proceedings of the Brown University Symposium on the Biology of Skin, 1962.—Edited by William Montagna, Richard A. Ellis, and Alene F. Silver, Arnold Biological Laboratory, Brown University, Providence 12, Rhode Island. This is distributed by The Macmillan Company, New York, pursuant to a special arrangement with Pergamon Press Limited, Oxford, England. 260 pages, $12.50, 1963.

In fourteen articles, most of which were presented in a symposium held at Brown University in 1962, this book gives an informative summary of present-day knowledge of the sebaceous gland and skin surface lipids. The embryology, anatomy, and physiology of the glands are thoroughly discussed and a detailed (if somewhat dated) analysis of the sebum and skin surface lipids is given. The chapters on ultrastructure and hormonal control of the sebaceous glands were particularly interesting in that they represent one of the clearest attempts to separate facts from theory.

Like most collections of work by different experts, this book suffers somewhat from a lack of continuity and integration. All in all, it is an interesting but mainly biologically oriented book.

JACQUES HOCHGLAUBE, M.D.

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FUNCTIONAL PATHOLOGY OF DISEASE—The Physiologic Basis of Clinical Medicine—Second Edition, edited by Arthur Grollman, M.D., Ph.D., F.A.C.P., Professor and Chairman of the Department of Experimental Medicine, University of Texas Southwestern Medical School, Dallas. The Blakiston Division, McGraw-Hill Book Company, Inc., 330 West 42nd Street, New York, N.Y., 1963. 979 pages, $15.00.

Dr. Grollman's preface to his first edition announced that the volume was intended to fill the gap between physiology and clinical medicine, particularly for medical students. In some respects, the volume is, indeed, a sturdy bridge. The chapters on pulmonary physiology, cardiovascular physiology and intermediary metabolism are well written, complete and oriented to clinical problems. Twenty six collaborators have helped Dr. Grollman prepare the 32 chapters in this book and, consequently, most are written by authoritative experts

in the field. The editor himself may have attempted too much, since several of the chapters he has contributed, particularly those in metabolic diseases, blood and blood forming tissues and "autoimmune" disorders, are not up to the quality he establishes in his discussion of hypertension.

Physicians and medical students desiring an interpretation of the physiology of the circulation, respiration, general metabolism and the endocrines applicable to clinical status will find the book useful. Although an attempt has been made to embrace the physiologic and chemical basis of most human diseases, this has not been fully achieved. The book cannot be regarded as a complete reference work in physiology.

GILDON N. BEALL, M.D.

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BLOOD DISEASES—M. A. Atamer, M.D., former Research Associate, Hematologist, Rockefeller Institute, New York; Senior Research Investigator, New York University; Director, Section of Hematology, Department of Medicine, Grasslands Hospital. Grune & Stratton, Inc., 381 Park Avenue South, New York 16, N.Y., 1963. 616 pages, $16.50.

This book, primarily intended for the medical student and practicing physician, stresses the clinical aspects of hematologic disorders. However, each chapter also contains a section on the pathology and physiology of these disorders, with special reference to the individual observations and work of numerous investigators. At the end of most chapters there are charts and tables with quantitative information on the incidence of signs, symptoms, lab findings, treatment and prognosis in each disease; these were compiled from an analysis of 18,000 cases reported in the literature.

For the physician, this book will be useful in providing quick reviews of case reports, and of some current concepts in hematology, especially in some of the more recently emphasized syndromes such as pyridoxine responsive anemias, Fanconi's anemia and thrombotic thrombocytopenic purpura. For the medical student, however, terms are often insufficiently defined and value is diminished by the fact this is more in the nature of a review than a text. The chief value of this book is the extensive review of the literature and bibliography which the author has compiled. This will be helpful to all physicians in finding source material, and in evaluating their own experience in the light of what has been reported in the literature.

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ATLAS OF BONE TUMORS—including tumorlike lesions—W. S. Gilmer, Jr., M.D., F.C.A.P., Visiting Lecturer in Pathology, University of North Carolina, Chapel Hill, N.C.; Pathologist to the Cape Fear Valley Hospital, Fayetteville, N.C.; formerly Associate Professor of Pathology, University of Tennessee, Memphis, Tenn., and Pathologist to Willis C. Campbell Clinic and Hospital, Memphis, Tenn.; G. B. Higley, Jr., M.D., Memphis, Tenn; and W. E. Kilgore, M.D., Memphis, Tenn. The C. V. Mosby Company, 3207 Washington Boulevard, St. Louis 3, Mo., 1963. 165 pages, $27.50.

This atlas, made colorful by ever so many color plates, was produced at the requests of orthopedic resident physicians at one of America's finest orthopedic clinics—the Campbell Clinic of Memphis, Tennessee. However, usefulness of the atlas is by no means limited to orthopedists.

Some will regret that the price of this relatively small treatise is so high. Unfortunately the reproduction of color is a costly process.

Color adds to the value of the book, particularly in the portrayal of many gross specimens. Physical qualities of the book are excellent.

As is true of most atlases, this atlas generally gives the reader less information than he seeks, particularly in the areas of differential diagnosis, and therapy. The authors, in their preface, concede that "the text is brief," and "omissions apparent."

The appendix includes an instructive breakdown of 220 consecutive destructive bone lesions, exclusive of metabolic diseases and infections.

This Atlas of Bone Tumors well deserves to take its place alongside the other treatises on bone tumors, published in recent years.

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DISEASES OF THE SKIN FOR PRACTITIONERS AND STUDENTS—Fifth Edition—George Clinton Andrews, M.D., F.A.C.P., Clinical Professor of Dermatology (retired), and Anthony N. Domonkos, M.D., F.A.C.P., Associate Clinical Professor of Dermatology. College of Physicians and Surgeons, Columbia University, W. B. Saunders Company, Philadelphia, 1963. 749 pages, 605 illustrations, $16.50.

Revisions of standard texts in dermatology have lagged behind medical progress in recent years. Not so with this book. The Fifth Edition of this "standard" text is a remarkable effort by these two authors at a time when multiple authorship of texts is common.

The authors have wisely grouped skin diseases into chapters based on etiologic and pathologic relations rather than on morphologic similarities. There is no chapter on papulosquamous diseases, but seborrheic dermatitis and psoriasis are considered together as are parapsoriasis, pityriasis rosea, and pityriasis rubra pilaris. In addition to the classic disorders, one can find discussion of such varied disorders as "H" disease, Aldrich's syndrome, and eruptions due to the newer drugs. The section on radiation physics and radiation therapy is excellent.

Fault can only be found in the suggestions for therapy, which in certain instances are archaic and at times amusing; as an example, colonic irrigations for chronic urticaria. Heavy dosage of B Complex vitamins and parenteral vitamin B_{12} is not, in my opinion, indicated in disorders not associated with deficiencies of these vitamins.

The bibliography at the end of each chapter is well selected. The index has been carefully compiled. This text should be a welcome addition to the library of the practitioner interested in diseases of the skin and to the specialist.

ROBERT J. ROTH, M.D.

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THE EMG—A GUIDE AND ATLAS FOR PRACTICAL ELECTROMYOGRAPHY—with 42 illustrations—Forbes H. Norris, Jr., M.D., Associate Professor of Neurology and Acting Chairman of the Neurology Division, Department of Medicine, University of Rochester; Senior Associate Physician, Strong Memorial Hospital, Rochester, New York; with an introduction by G. Milton Shy, M.D., Professor and Chairman, Department of Neurology, University of Pennsylvania. Grune & Stratton, Inc., 381 Park Avenue South, New York 16, N.Y., 1963. 134 pages, $4.75.

Clinical and laboratory research interest in neuromuscular disorders has been rapidly increasing during the last decade. The electromyogram as a clinical and laboratory research tool has been finding its place and has helped considerably in furthering an understanding of neuromuscular mechanisms in health and in disease. Dr. Norris has been active in this field during this time and this small book is an excellent introduction to this field of electromyography. It deals with the history and principles of electromyography, gives an introduction to instrumentation and is a technical guide to the beginner in electromyography. It also clearly reveals the value and place of electromyography in clinical investigation and diagnosis. This is indeed a useful, practical guide to any student interested in electromyography, or to the neurologist who needs a simple and clear understanding of the underlying principles and the facts EMG can reveal and their interpretation, and to the physician who requests EMG tests and wants to know more about the basis for the electromyographer's conclusion rather than be satisfied with the conclusion given as an opinion in an electromyographic report.

DONALD MACRAE, M.D.